

Effectiveness of Oral Nutritional Support – **The Evidence**



Undernutrition – a **major** healthcare issue

Undernutrition is common and needs to be routinely identified, promptly treated and monitored

Consequences of undernutrition

- Reduced activities of daily living and quality of life¹
- Increased complications¹
- Increased morbidity¹
- Increased risk of mortality^{2,3}

Undernutrition increases the burden on **healthcare utilisation**^{3,4,5}

- Up to **65%** more GP visits⁵
- Increased prescription rates³
- Up to **82%** more hospital admissions⁵
- Up to **38%** more hospital readmissions⁶
- **> 30%** longer hospital stays⁵

All of these factors lead to **significantly increased costs**^{7,8,9}

The minimum annual cost of undernutrition in the UK is **£7.3 billion**⁷

This excludes the costs of:

- Home visits by healthcare workers
- Costs of visits to GPs or outpatient clinics by under 65 year olds
- Costs of private healthcare

This is **double the reported cost of managing obesity** and its consequences¹⁰ yet much more government and media attention is given to obesity than to undernutrition.



Treatment of undernutrition needs to be **evidence based**

Review of Reviews Stratton and Elia 2007¹¹

- Concise summary of evidence base for oral nutritional supplements (ONS)
- Review of 13 published systematic reviews and meta-analyses
- Focused on outcomes – clinical benefits are highlighted

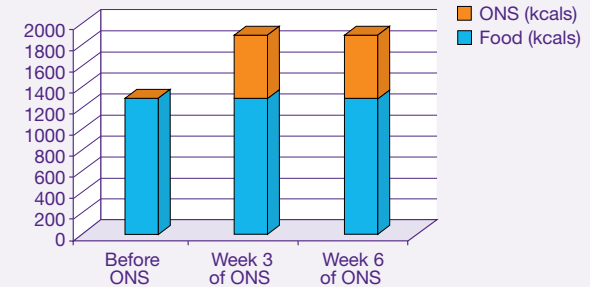
Trials in hospital and community settings across different patient groups clearly indicate that oral nutritional supplements have been proven to:

- ✓ **Significantly increase total intakes** of energy, protein and other nutrients^{11,12}



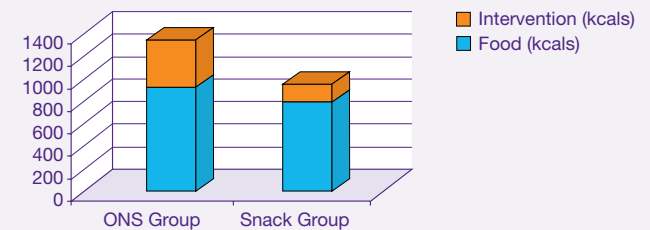
- ✓ **Have little effect on appetite**^{11,12,13} – they have been shown not to substantially reduce food intake^{11,14}

Energy – Turic et al 1999¹⁴

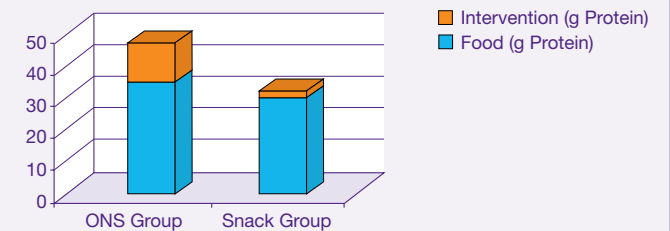


- ✓ **Improve nutrient intakes** to a greater degree than iso-energetic food snacks¹⁵

Energy – Stratton et al 2006¹⁵



Protein – Stratton et al 2006¹⁵



Proven Clinical Benefits of Oral Nutritional Supplements

- ✓ Promote **weight gain** or attenuate weight loss^{11,12}
- ✓ Positively impact on **body function**^{11,12,13}



Improvements seen with ONS in:

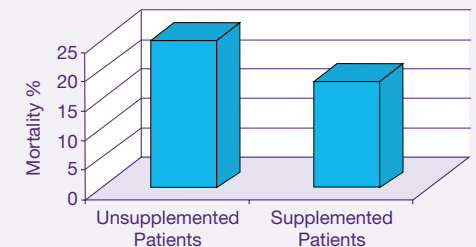
- Muscle strength
- Quality of life (mobility)
- Activities of daily living
- Incidence of depression
- Wound healing
- Immune function
- Fatigue levels
- Overall well being

✓ Reduce mortality^{11,12}

- Meta-analyses consistently show that treatment with ONS compared with routine care reduces mortality in acutely ill, hospitalised and elderly patients, with a range of conditions.
- Benefits predominantly in, but not limited to, the undernourished.
- There is no evidence to show that any other form of oral nutritional support reduces mortality.

Analysis in a variety of patient groups in both hospital and community settings with 1-2 ONS per day (250-600 kcals)

- Stratton 2003¹¹



✓ Reduce complication rates^{11,12,16}

- Systematic reviews and meta-analyses consistently indicate fewer complications, including infections and pressure ulcers, with ONS use versus routine care.
- Benefits are particularly observed in the acutely ill, elderly and surgical patients and from studies crossing from hospital into the community.

✓ Have a cost benefit^{5,7,8,9}

- Reduce hospital readmissions^{6,12,13,17}
- Reduce length of hospital (acute and community) stay¹⁷

*“A **small** reduction in costs through intervention with ONS would result in **large net cost savings**”¹⁵*

European bodies **support** the evidence base and use of ONS

NICE 2006¹⁸

“ “ *Health care professionals should consider oral nutrition support to improve the nutritional intake of people who can swallow safely and are malnourished or at risk of malnutrition* ” ”

BAPEN – Malnutrition Advisory Group Recommendation

“ “ *There is substantial evidence of the beneficial clinical effects of ONS on particular groups of patients in the hospital and community, and of greater benefit in patients with a BMI < 20kg/m², particularly patients in the community* ” ”

ESPEN 2006¹⁹

“ “ *In patients who are undernourished or at risk of undernutrition, use oral nutritional supplementation to increase energy, protein and micronutrient intake, maintain or improve nutritional status, and improve survival. ONS are recommended early in patients at nutritional risk* ” ”



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